

## REMARKS

Claims 1-7 and 9-14 are currently pending in the present application.

The present invention is directed to compositions comprising fully or substantially hydrogenated block copolymers and various end-use applications thereof. The hydrogenated block copolymer is a rigid hydrogenated block copolymer, which comprises at least two distinct blocks of hydrogenated polymerized vinyl aromatic monomer, herein referred to as hydrogenated vinyl aromatic polymer blocks, and at least one block of hydrogenated polymerized conjugated diene monomer, herein referred to as hydrogenated conjugated diene polymer block, wherein the hydrogenated copolymer is further characterized by:

- a) a weight ratio of hydrogenated conjugated diene polymer block to hydrogenated vinyl aromatic polymer block of 40:60 or less;
- b) a total weight average molecular weight ( $M_w$ ) of from 30,000 to 150,000, wherein each hydrogenated vinyl aromatic polymer block (A) has a  $M_w$  of from 6,000 to 60,000 and each hydrogenated conjugated diene polymer block (B) has a  $M_w$  of from 3,000 to 30,000; and
- c) a hydrogenation level such that each hydrogenated vinyl aromatic polymer block has a hydrogenation level of greater than 90 percent and each hydrogenated conjugated diene polymer block has a hydrogenation level of greater than 95 percent.

Claims 1-7 and 9-14 stand rejected under 35 USC 112, first paragraph as containing new matter, notably 'thermoformed articles'. The claims have been amended to delete such thermoformed articles and thus the rejection is obviated.

The Claims are supported by previous filings and the claims have been amended such that support is found in the preceding cases from which the present case claims priority. Specifically:

1) Claim 1 has been amended to delete thermoformed articles and pultruded articles and teachings within the specification and claims can be found in the provisional filing, filed on 6/11/99 and are therefore privileged to an effective filing date of June 11, 1999.

Claims 1-6 and 8-13 stand rejected under 35 U.S.C. 102(a) as anticipated by Fujiwara et al. (JP 11-286526). JP 11-286526 published on October 19, 1999 after the

effective filing date of the present application (June 11, 1999) and therefore the invention was not known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent according to 102(a). Therefore, this rejection has been obviated.

Claims 3-7, 10-14 stand rejected under 35 U.S.C. 103(a) as unpatentable over Fujiwara et al., cited above in view of Ikematu (USP 5,189,110) or Hoeg (USP 3,598,886) obvious over Tanaka (JP 2725402). However, Fujiwara et al. has been removed as a reference, thus this rejection has also been obviated.

Claims 1-7 and 9-14 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hoeg et al. (USP 3,598,886). The Examiner states that Example 71 appears to disclose molecular weights which are within the limits and bounds of the claims. The Examiner is mistaken. Example 71 contains 41.7 wt. percent butadiene and 24 wt. percent styrene. Therefore the ratio of butadiene/styrene within the copolymer is not 40:60 or less as the current claims require. Therefore, this rejection has been obviated.

Claims 1-6 and 8-13 stand rejected under 35 U.S.C. 102(b) as being anticipated by Kato (JP2586575). Thermoformed articles have been deleted from the claims. Therefore optical media discs are not included. Kato only teaches an application of optical media discs. Therefore, the articles as now claimed are not anticipated by Kato and this rejection has been obviated.

Claims 3-6 and 8-13 stand rejected under 35 U.S.C. 103(a) as being anticipated by Kato (JP2586575). However, as stated previously, the amended claims of the present invention do not read on 'discs' produced from such compositions.

Therefore, this rejection has been obviated.

Claims 1-7 and 9-14 stand rejected under 35 U.S.C. 102(e) as being anticipated by Hahnfeld (any one of U.S. Patents 6,451,924; 6,376,621; 6,426,390; 6,350,820).

The Examiner states that based upon the earlier effective U.S. filing date of the references, they constitute prior art under 35 U.S.C 102(e). However, as stated previously, the current application has an effective filing date of June 11, 1999 which is prior to any of the filing dates of the cited patents. Therefore, this rejection has been obviated.

Claims 1-7 and 9-14 stand rejected under the judicially created doctrine of

obviousness-type double patenting as being unpatentable over all claims of U.S. Patents 6,451,924; 6,376,621; 6,426,390; 6,350,820.

U.S. 6,451,924 (filed May 11, 2000) claims a composition having a weight ratio of 1,2 to 1,4 polybutadiene content of greater than 20:80. Therefore, this composition is patentably distinct from the composition utilized in the present application which has no such teaching or requirement. Additionally, the present application was filed previous to the filing date of the issued U.S. patent.

U.S. 6,376,621 (filed May 31, 2000) claims a composition comprising a hydrogenated isoprene polymer block and discs produced therefrom. Again, the composition is patentably distinct from the composition utilized in the present invention, wherein the surprising and unexpected results of an isoprene polymer block copolymer were demonstrated. Additionally, optical media discs are not contemplated by the present claims of the present invention and the present application was filed previous to the filing date of the issued U.S. patent.

U.S. 6,426,390 (filed November 30, 2000) claims a composition having a soft segment phase volume such that lamellar morphology is achieved. This composition is again patentably distinct from the composition utilized in the applications of the present invention, in that no such morphology is taught or required by the claims of the present invention. Additionally, the present application was filed previous to the filing date of the issued U.S. patent.

U.S. 6,350,820 (filed May 11, 2000) claims a composition wherein the hydrogenated conjugated diene polymer block has a polymer length of approximately 120 monomer units or less, which is patentably distinct from the composition utilized in the applications of the present invention. No such limitation is taught or required by the claims of the present invention. Optical media discs are not contemplated within the claims of the present application. Additionally, the present application was filed previous to the filing date of the issued U.S. patent.

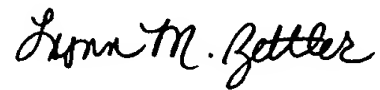
Therefore, the double patenting rejection has been obviated.

The Examiner states that Applicants' Novel Heat Resistant Plastics From Hydrogenation of Styrene Polymers reference has not been considered since the date, journal of publication, author, etc. are not present on the IDS. The Examiner states that the author is still not present in the citation. Please note accompanied herewith an amended IDS for Polymer Preprints, 13 (1) pg. 427 1972, with the author. Therefore,

USSN 09/943,925

in light of the previous amendments and remarks above, allowance of claims 1-14 is respectfully requested. An expedited action to this response is respectfully requested. It is believed that the amendments presented will place the claims in condition of allowance and are presented herein to further the prosecution of the present application. Please notify as soon as possible if such amendments have been entered, in case an appeal is required.

Respectfully submitted,



---

Lynn M. Zettler  
Registration No. 35,797  
Phone: (989) 636-5214

P. O. Box 1967  
Midland, MI 48641-1967